BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements.	Rulemaking 16-02-007 (Filed February 11, 2016)

JOINT COMMENTS OF CALPINE CORPORATION AND CALPINE POWERAMERICA-CA LLC ON THE PRELIMINARY SCOPE OF ORDER INSTITUTING RULEMAKING

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TABLE OF CONTENTS

Page(s)

Pursuant to Ordering Paragraph 5 in the *Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements* ("OIR") issued on February 19, 2016 and Rule 6.2 of the California Public Utilities Commission's ("Commission") Rules of Practice and Procedure, Calpine Corporation and Calpine PowerAmerica-CA, LLC ("CPA") (collectively referred to as "Calpine"), offer the following comments on the scope of this proceeding.[1]

I. INTRODUCTION

Calpine Corporation is the largest producer of geothermal energy in North America, operating 15 geothermal generating units with a combined capacity of 725 megawatts at the Geysers in Northern California. The Geysers produces approximately 16 percent of California's renewable energy. Calpine Corporation has pioneered some of the most innovative geothermal approaches to expand and extend this natural resource.

Calpine Corporation also owns a large fleet of natural gas fired power plants, which help provide a large fraction of the state's energy, maintain reliability, and balance intermittent renewables. Calpine's natural gas plants will likely continue to play these vital roles even as the state's resource mix evolves.

CPA is an Energy Service Provider subject to the Commission's Renewables Portfolio Standard ("RPS") and Resource Adequacy ("RA") compliance obligations. The OIR names CPA as a respondent. Given its operation of renewable and conventional generation resources throughout the State as well as CPA's operation as an Energy Service Provider, CPA has a substantial interest in this proceeding and a unique perspective on many of the issues that will be addressed in the integrated resource planning ("IRP") process.

[1] Attachment A to the OIR lists CPA as a Respondent in this proceeding. Calpine Corporation is a party to the long-term procurement planning proceeding (R.13-12-010) and, on March 2, 2016, it provided the Process Office with the information listed in Section 7.01 of the OIR for becoming a party.

II. COMMENTS ON THE PRELIMINARY SCOPE OF THE OIR

Calpine appreciates the opportunity to comment on the Preliminary Scoping Memo contained in the OIR. Calpine supported Senate Bill ("SB") 350 primarily because of its mandate that the California Public Utilities Commission ("Commission") develop an IRP process to coordinate planning and procurement practices to meet greenhouse gas ("GHG") goals. Calpine hopes that the new IRP process will lead to more cost-effective planning and procurement practices by enabling greater competition between different types of resources and an increased focus on GHG reduction as the primary environmental goal of California energy policy.

Calpine believes that the IRP process will demonstrate that reliance on efficient, existing conventional generation must be a key component of the state's strategy for meeting SB 350's goal of a "*diverse and balanced portfolio of resources* needed to ensure a reliable electricity supply *that provides optimal integration of renewable energy in a cost-effective manner*."[2] While the Preliminary Scoping Memo articulates many of the questions that will need to be addressed to ensure that the IRP process leads to cost-effective GHG emissions reductions, it fails to adequately address how existing conventional generation will be examined during the IRP process. For the reasons set forth below, Calpine requests that the Commission broaden the scope of the IRP proceeding to address specifically how existing conventional generation will be modeled and valued in the IRP process.

[2] SB 350, codified in Pub. Util. Code § 454.51(a) (emphasis added).

In particular, Calpine requests that the following topics be included within the scope:

1. How integrated resource plans will analyze the availability and viability of existing conventional generation resources; and
2. How load serving entity ("LSE") procurement practices should be modified to ensure the viability of cost-effective existing conventional generation, including cost recovery mechanisms for the procurement of existing conventional generation.

Explicitly including issues related to existing conventional generation within the scope of the IRP proceeding is especially important at this time. California's conventional generation fleet is undergoing a major transition, with the retirement of older units dependent on once-through cooling technology and the potential retirement of some more modern gas-fired generation that may not be economically viable given the state's environmental mandates. California can no longer assume that modern existing conventional generation will continue to operate in light of these trends. Thus, to the extent that an integrated resource plan includes reliance on existing conventional generation, it should provide an analysis of the availability and economic viability of that generation and also specify how it is to be procured.

In addition to Calpine's concerns about existing conventional generation, Calpine also encourages greater focus on the role of GHG allowance markets and regionalization in meeting long-term GHG reduction targets. In particular, Calpine recommends the inclusion of the following GHG-related issues within the scope of the IRP proceeding:

1. How GHG allowances might be used to meet LSE's GHG reduction goals; and
2. How regional GHG emissions should be accounted for in the IRP process.

The following comments elaborate on Calpine's general concerns and are organized by some of the issues set forth in Section 2.1 of the Preliminary Scoping Memo.

III. IRP IMPLEMENTATION ISSUES

A. How the resource authorization and procurement processes will be structured

SB 350 requires the development of integrated resource plans that identify a diverse set of resources to meet long-term GHG goals at the least cost, subject to other state policy goals such as the 50% RPS. In light of the economic and environmental pressures that many existing conventional generation resources face, it would not be reasonable for these integrated resource plans to simply assume that existing generators will still be available in the future. Instead, integrated resource plans should analyze the resource's availability and specify how the resource will be procured.

The Commission intended to analyze the viability of existing conventional generation in the Joint Reliability Plan ("JRP") proceeding (R.14-02-001), but the proceeding was closed before that analysis was completed.[3] Calpine urges the Commission to continue the effort that it started in the JRP to collect data on: (a) which existing conventional generation units are actually supported by long-term contracts; and (b) whether the revenues available from short-term energy, ancillary services, and RA markets are sufficient to support the continued operation of resources that are not supported by long-term contracts. Such an analysis could demonstrate that there is a significant amount of capacity that could be used to cost-effectively meet future reliability and energy requirements, which may not be available in the future because it is not under long-term contract and short-term wholesale revenues do not support its continued operation.

[3] *See* D.16-01-033, mimeo at 5 ("In general, Track 2 was to inventory and model existing generation resources and their characteristics to determine if they meet flexibility requirements.").

The Commission should also use this IRP process to reconsider how existing conventional generation resources are procured. Historically, the Commission has addressed the investor-owned utilities' ("IOUs") short- to intermediate-term procurement, including procurement of *existing* conventional generation for terms up to five years, through the bundled procurement track of the Long-Term Procurement Planning ("LTPP") proceeding. In the system track of LTPP, the Commission has addressed procurement of *new* conventional generation, the costs of which are potentially recoverable from the customers of all LSEs through nonbypassable charges. Calpine recommends that the Commission consider applying its current approach to new conventional generation to existing conventional generation (i.e., it should consider authorizing the IOUs to contract for existing conventional generation on a long-term basis and recover the costs from the customers of all LSEs). SB 350 explicitly enables this approach by directing the Commission to:

> *Ensure that the net costs of any incremental renewable energy integration costs* procured by an electrical corporation to satisfy the need identified in subdivision (a) *are allocated on a fully nonbypassable basis* consistent with the treatment of costs identified in paragraph (2) of subdivision (c) of Section 365.1.[4]

The Commission has the statutory discretion to allow the IOUs to recover the costs of renewable integration resources that are included in their integrated resource plans through nonbypassable charges, which could include the costs of long-term contracts to support existing conventional generation.

[4] SB 350, as codified in Pub. Util. Code § 454.51(c) (emphasis added).

B. Whether it is necessary to allocate the electricity sector emissions reductions targets established by the CARB to individual LSEs and, if so, how

To the extent possible, Calpine prefers reliance on markets to meet the state's GHG goals. Thus, Calpine recommends that the Commission consider whether to allow LSEs to use GHG allowances to meet IRP goals. Relatedly, Calpine requests that the Commission consider addressing how regional GHG emissions will be considered in the IRP process. Increased regionalization of the California Independent System Operator ("CAISO"), potentially combined with regional GHG markets, could facilitate the use of California generation, both renewable and conventional, to decrease the West's reliance on coal and serve load inside and outside of California. The Commission should examine how such reductions could be credited towards IRP goals.

C. Consistent methodologies for resource valuation and/or selection criteria across multiple resource types, for use in comparisons in all-source or multiple-source procurement

As described above, the conventional generation fleet is facing transitions and potential near-term retirements. Consequently, valuation methodologies must evolve to not only compare the cost-effectiveness of new potential resources, but also assess whether or not it is economic to replace existing resources with new resources. For example, as the cost of energy storage declines, it may become even more competitive with new conventional generation. The results of Southern California Edison Company ("SCE")'s recent Local Capacity Requirements Request for Offers demonstrate that storage is already competitive with conventional generation in certain contexts.[5] But even as the cost of energy storage declines, it is unlikely to be cheaper than the going-forward costs of existing conventional generation. To the extent that existing

[5] *See* D.15-11-041, mimeo at 35 (Findings of Fact No. 17) ("SCE procured over five times the minimum Energy Storage required in D.13-02-015 and D.14-03-004 and a total of 263.64 MW of Energy Storage-based resources.").

conventional generation is at risk of retirement, valuation methods are needed to assess whether it is more cost-effective to allow such generation to retire or, to the extent that it is needed for reliability or other requirements, support its continued operation rather than replace it with new resources.

D. Refinement of flexible capacity definitions, in coordination with and relying on the Resource Adequacy Rulemaking (R.14-10-010)

It is not clear that current flexible capacity definitions have directed RA procurement towards resources that are operationally flexible. Calpine urges additional analysis of the specific operating characteristics that actually facilitate renewable integration. The types of detailed production cost modeling that has been performed in the LTPP proceedings, and will continue to be performed in this proceeding, may shed additional light on the value of different operating characteristics. In addition, Calpine encourages the Commission to consider the role of well-designed energy and ancillary services markets, which at least theoretically should reward the actual performance of operationally flexible resources, in promoting the continued operation of operationally flexible resources.

E. Refinement of capacity values for renewables, including effective load carrying capacity (ELCC) values

Calpine acknowledges that the use of ELCC for defining the capacity value of renewables is squarely within the scope of the RA proceeding, at least with respect to near-term RA resource counting and compliance. However, Calpine emphasizes the importance of this issue to some of the long-term procurement issues that are the subject of this IRP proceeding. As indicated above, Calpine is concerned that the compensation for some existing conventional generation that could be used to cost-effectively meet future reliability and renewable integration requirements is too low to encourage continued operation of such resources. RA procurement

provides an important potential revenue stream for existing conventional generation. Yet, persistent oversupply of capacity due to the generous counting of solar in particular and renewables more generally has depressed RA capacity prices. More accurate RA counting of renewables through the application of ELCC would reduce supply and potentially raise RA compensation for existing conventional generation, which could partially address concerns about its long-term availability .

In addition, the use of ELCC will lead to a more accurate assessment of the capacity value of different renewable technologies, which should level the playing field for renewable technologies (*e.g.*, geothermal and wind) that are not over-counted to the same extent as solar under current counting rules. These adjusted capacity values could lead to more balanced and cost-effective renewable procurement and lower renewable integration costs. While this specific issue is within the scope of the RPS proceeding, there may be a nexus with the current proceeding because the current proceeding is taking a holistic approach to long-term procurement.

IV. COMMENTS ON THE OIR

A. Category and Need for Hearing,

Calpine agrees that the proceeding should be categorized as ratesetting. It also agrees that the Commission will likely need to address the wide variety of issues within the scope of this proceeding through a combination of workshops, comments, and potentially an evidentiary hearing.

B. Issues to Be Considered

For the reasons set forth above, Calpine urges the Commission to expand the scope of issues to be considered through this IRP process to specifically address:

1. How integrated resource plans will analyze the availability and viability of existing conventional generation resources;
2. How LSE procurement practices should be modified to ensure the viability of cost-effective existing conventional generation, including cost recovery mechanisms for the procurement of existing conventional generation;
3. How GHG allowances might be used to meet LSE IRP GHG reduction goals; and
4. How regional GHG emissions should be considered in the IRP process.

C. Schedule

Calpine generally supports the Preliminary Schedule contained in the OIR.

V. CONCLUSION

Calpine appreciates the opportunity to offer comments on the scope of this OIR and looks forward to actively participating in the proceeding.

Respectfully submitted,

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